CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer,
Yelahanka Satelite Town Sub Division,
BBMP.

03rd January 2017

Dear Sir,

Sub: Testing of Materials.

As requested, tests on physical properties were carried out for the Materials supplied by you, for the work of **'Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works).'**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

AE W4

(27)

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Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 20mm ↓ Graded

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of Agency	Sri. Kishorekumar
Date of Testing	03/01/2017
Specific Gravity	2.63
Water Absorption	0.32%
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2011), IS : 2386 (Part III)-1963 (Reaffirmed 2011)

IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)	Remarks
40	100	100	Satisfies the requirement
20	99.1	95-100	
10	45.3	25-55	
4.75	8.2	0-10	

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

Khushboo

(KHUSHBOO L.)
Quality Manager

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TEST REPORT

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Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of the Agency	Sri. Kishorekumar
Date of Testing	03/01/2017

Tests	**Test Method As Per IS & Apparatus**		**Results**		**Requirements As Per IS 8112:1989**	**Remarks**
	IS Code	**Method**	**Value**	**Unit**		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	49	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	489	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	4	mm	Not More Than 10 mm	Satisfies Requirement

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(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

(13)
(25)

TEST REPORT

GRADATION TEST ON FINE AGGREGATES

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of Agency	Sri. Kishorekumar
Date of Testing	03/01/2017
Specific Gravity	**2.57**
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2011), IS : 2386 (Part III)-1963 (Reaffirmed 2011)

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)				Grading Zone	Remarks
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV		
River Sand	10	**100**	100	100	100	100	II	Satisfies the requirement
	4.75	**98.6**	90-100	90-100	90-100	95-100		
	2.36	**87.2**	60-95	75-100	85-100	95-100		
	1.18	**75.1**	30-70	55-90	75-100	90-100		
	0.6	**48.6**	15-34	35-59	60-79	80-100		
	0.3	**25.4**	5-20	8-30	12-40	15-50		
	0.15	**7.9**	0-10	0-10	0-10	0-15		

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Khushboo

(KHUSHBOO L.)
Quality Manager

AE W4

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(24)

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 40mm ↓ Graded

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of Agency	Sri. Kishorekumar
Date of Testing	03/01/2017
Specific Gravity	**2.66**
Water Absorption	**0.29%**
Technical Reference	IS : 2386(Part I)-1963 (Reaffirmed 2011), IS : 2386 (Part III)-1963 (Reaffirmed 2011)

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS:383-1970 (Reaffirmed 2011)**	**Remarks**
80	**100**	100	**Satisfies the requirement**
40	**98.6**	95-100	
20	**54.4**	30-70	
10	**25.3**	10-35	
4.75	**3.3**	0-5	

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Khushboo

(KHUSHBOO L)
Quality Manager

CIVIL TECH LABS BANGALORE

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Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 8 mm

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of the Agency	Sri. Kishorekumar
Date of Testing	03/01/2017
Grade of Steel	Fe - 500

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	8	8	Satisfactory
2	Wt/m Length (Kg/m)	0.396	0.395	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	14.1	12	Satisfactory
5	Yield Stress(N/Sq.mm)	506	500	Satisfactory
6	U T S (N/Sq.mm)	562	545	Satisfactory

Note:

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4. The results are based on the test conducted on samples supplied by the client.

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(KHUSHBOO L.)
Quality Manager

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TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 10mm

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of the Agency	Sri. Kishorekumar
Date of Testing	03/01/2017
Grade of Steel	Fe - 500

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	10	10	Satisfactory
2	Wt/m Length (Kg/m)	0.617	0.617	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	14.1	12	Satisfactory
5	Yield Stress(N/Sq.mm)	509	500	Satisfactory
6	U T S (N/Sq.mm)	566	545	Satisfactory

Note:

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Khushboo

(KHUSHBOO L.)
Quality Manager

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TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 12 mm

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of the Agency	Sri. Kishorekumar
Date of Testing	03/01/2017
Grade of Steel	Fe - 500.

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	12	12	Satisfactory
2	Wt/m Length (Kg/m)	0.889	0.888	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	15.2	12	Satisfactory
5	Yield Stress(N/Sq mm)	513	500	Satisfactory
6	U T S (N/Sq mm)	570	545	Satisfactory

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(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

(20)

TEST REPORT
TESTS ON SOLID BLOCKS

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of the Agency	Sri. Kishorekumar
Date of Testing	03/01/2017
Technical Reference	IS: 2185(Part-I)-2005 (Reaffirmed 2010)
No. of samples tested	8
Grade	C (4.0)

1. COMPRESSIVE STRENGTH

Sl. No.	Nominal Dimension (cms)	Compressive strength (N/mm²)	Minimum Compressive Strength as per IS: 2185(Part-I)-2005 (Reaffirmed 2010)	
			Individual	Avg. of 8 samples
1	40x20x20	4.2	Minimum Compressive Strength of Individual Units	Minimum Average Compressive Strength of Units
2		4.3		
3		4.1	For Grade C (5.0)- 4.0 N/mm² For Grade C (4.0)- 3.2 N/mm²	For Grade C (5.0)- 5.0 N/mm² For Grade C (4.0)- 4.0 N/mm²
4		4.2		
5		4.4		
6		4.3		
7		4.2		
8		4.1		
Average Compressive strength (N/mm²)		**4.2**		

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(17)
(19)

2. WATER ABSORPTION

Sl. No.	Nominal Dimension (cms)	Water Absorption (% by weight)	Average (% by weight)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	7.48	**7.45**	When three samples are tested the average water absorption shall not be more than 10% by mass
2		7.36		
3		7.52		

3. BLOCK DENSITY

Sl. No.	Nominal Dimension (cms)	Block Density (Kg/cum)	Average (Kg/cum)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	1865.3	**1866.2**	The Solid Concrete blocks used as load bearing units shall have average block density not less than 1800Kg/m^3
2		1866.2		
3		1867.1		

Remarks	Satisfies the Requirements.

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(KHUSHBOO L.)
Quality Manager

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T-2654

To,

Assistant Executive Engineer,
Yelahanka Satelite Town Sub Division,
BBMP.

13th February 2017

Dear Sir,

Sub: Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works).
Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Reports of the above.

Thanking you,

For Civil Tech Labs,

Khushboo

(KHUSHBOO L.)
Quality Manager

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(17)

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5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of Agency	Sri. Kishorekumar
Grade of Concrete	M-20
No. of cubes tested	3
Technical Reference	IS. 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	Sample-1	150.04 X 150.03 X 150.0	22511	16/01/2017	13/02/2017	28	8.20	495	22.00	21.63
2		150.06 X 150.05 X 150.0	22517				8.21	480	21.33	
3		150.07 X 150.08 X 150.0	22523				822.00	485	21.56	

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(16)

TEST REPORT
COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Yelahanka Satelite Town Sub Division, BBMP.
Name of Work	Construction of Samudaya Bhavana Building in GKVK Layout of Ward No. 04 (Additional Works)
Name of Agency	Sri. Kishorekumar
Grade of Concrete	M-20
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm²)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	Sample-2	150.06 X 150.05 X 150.0	22517	16/01/2017	13/02/2017	28	8.23	500	**22.22**	**21.85**
2		150.06 X 150.07 X 150.0	22520				8.22	490	**21.78**	
3		150.09 X 150.05 X 150.0	22521				8.21	485	**21.56**	

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